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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/815,919

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Veniamin A. Pak

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06/30/2005

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EXAMINER

PHILOGENE, HAISSA

ART UNIT

PAPER NUMBER

2828

DATE MAILED: 06/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/815,919	Applicant(s) PAK, VENIAMIN A.	
	Examiner Haissa Philogene	Art Unit 2828	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-7 is/are rejected.
- 7) ☒ Claim(s) 2 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on 01 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 06/01/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 7 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The recited limitation "A lamp driver comprising means for operating a discharge lamp without retrofit when one or more filaments are burnt out" is seen as a single means claim, i.e., where the means recitation does not appear in combination with another recited element of means, therefore subject to an undue breadth rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1, 5 and 7 are rejected under 35 U.S.C. 102(a) as being anticipated by Menna, Patent No. DE 101 25 510 A1.

As per claim 1, Menna discloses a lighting circuit to operate a discharge lamp (16, 47) with a bi-pin base (19), comprising a bypass circuit 20 (fig.2) or 51(Fig.5) coupled across pins provided to a filament 17 (fig.2) 48, 49 (Fig.5) in the discharge lamp,

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wherein the bypass circuit is relatively inactive when the filament is in working condition (not defective) and becomes active to allow continued starting and lighting of the discharge lamp when the filament is broken (defective) (see also Col.17, paragraphs [0083] and [0084]).

As per claim 5, Menna discloses a method for extending the life of a discharge lamp (see abstract, lines 1-3), comprising coupling a redundant circuit 20 (fig.2) or 51(Fig.5) across terminals provided to a cathode 17 (fig.2) 48, 49 (Fig.5) in the discharge lamp (16, 47), wherein the redundant circuit is normally dormant or inactive (cathode not defective) but provides a conductive path (active) between the terminals after the cathode wears out (defective) (see also Col.17, paragraphs [0083] and [0084]). As per claim 7, Menna discloses in Fig.5 a lamp driver comprising means (58-66) for operating a discharge lamp (47) without retrofit when one or more filaments (48, 49) are burnt out (defective) (see also Col.17, paragraphs [0083] and [0084]).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Menna in view of Lavaud et al., Patent No. 5,105,127.

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Menna discloses the claimed invention substantially as explained above except for a dimming circuit configured to vary the amplitude of an input voltage in response to a control signal to adjust the brightness of the discharge lamp. Lavaud discloses in Fig.3 a lighting circuit having a dimming circuit or voltage regulator (57) configured to vary the amplitude of an input voltage (+V1) in response to a control signal (56) to adjust the brightness of a discharge lamp (34) via control loop circuit (49-57) (see also Col.4, lines 33-38). It would have been obvious to a person having ordinary skill in the art at the time the invention was made to employ the dimming circuit as taught by Lavaud into the Menna type circuit, because it would allow an effective supply voltage to the discharge lamp with variable brightness capability and with no flickering due to stroboscopic effect.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Menna in view of Mattas, Patent No. 5,463,284.

Menna discloses the claimed invention substantially as explained above. Further, Menna discloses an electronic ballast (68). Menna does not explicitly disclose a rectifier circuit configured to convert a substantially alternating current input voltage at a first frequency to a rectified voltage; and an oscillator circuit configured to receive the rectified voltage and to produce a substantially alternating current output voltage at a second frequency to drive the discharge lamp, wherein the second frequency is relatively higher than the first frequency. Mattas discloses in Fig.3 a lighting circuit with an electronic ballast 20 having a rectifier circuit (30) configured to convert a substantially alternating current input voltage (277 Vac) at a first frequency (60 Hz) (see

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also Col.5, line 42) to a rectified voltage (through terminals 31, 32); and an oscillator circuit (Q6, Q7, 60, 67, T1, C5, C6) configured to receive the rectified voltage (via terminals 41, 42) and to produce a substantially alternating current output voltage (via node A) at a second frequency (28 KHz) (see also Col.6, line 66-Col.7, line 1) to drive the discharge lamp (LL), wherein the second frequency (28 KHz) is relatively higher than the first frequency (60 Hz). It would have been obvious to a person having ordinary skill in the art at the time the invention was made to employ the rectifier and oscillator circuit arrangement as taught by Mattas into the Menna type circuit. This can be done by replacing the Menna's ballast with the Mattas' ballast. Thus, it would allow lowering of the circuit power loss and the lamp ballast manufacturing cost.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Menna in view of Stevens, Patent No. 5,841,650.

Menna discloses the claimed invention substantially as explained above except for the redundant circuit being a diode. Stevens discloses in Fig.3 a lighting circuit to operate a discharge lamp (4) with a bi-pin base having a redundant or bypass circuit being a diode (D12, D13) coupled across the pins of the cathode (9, 19). It would have been obvious to a person having ordinary skill in the art at the time the invention was made to employ the diode as taught by Stevens into the Menna type circuit. This can be done by replacing the Menna's bypass circuit with the Stevens' bypass circuit. Thus, it would allow a reduction in the cathode voltage since in some instances the type of lamp used requires a different voltage.

Allowable Subject Matter

Claim 2 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art fails to disclose the bypass circuit being a pair of diodes coupled in parallel and opposite directions.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Menna, Pub. No. 2004/0041524; Pak, Patent No. 6,731,075; Zuchtriegel, Patent No. 4,949,013; Agnew, Patent No. 4,008,414; Yuasa et al., Patent No. JP 01043999.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Haissa Philogene whose telephone number is (571) 272-1827. The examiner can normally be reached on 6:30 A.M.-6:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MinSun Harvey can be reached on (571) 272-1835. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

hp

Haissa Philogene
Primary Examiner
Haissa Philogene
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